



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,373	12/16/2003	Glenn Gearhart	ACA1.PAU.03	6381

23386 7590 03/16/2007  
MYERS DAWES ANDRAS & SHERMAN, LLP  
19900 MACARTHUR BLVD.,  
SUITE 1150  
IRVINE, CA 92612

EXAMINER
----------

SCHMIDT, KARI L

ART UNIT	PAPER NUMBER
----------	--------------

2139

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/737,373

Applicant(s)

GEARHART, GLENN

Examiner

Kari L. Schmidt

Art Unit

2139

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                     |                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                         | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/16/2003</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 3 is objected to because of the following informalities: "Wherein the user of the CDCM" should be "Wherein the user of the CDCM system". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 1 is rejected under 35 U.S.C. 101 because Claim 1 is directed to "computer program, logic or language, per se." Generally, functional descriptive material, such as a computer program, is statutory when it is stored on a tangible computer readable medium. See MPEP § 2106 IV.B.I (a). However, in the present application, the specification defines does not define "computer readable medium." A computer program listing on a sheet of paper is not considered to provide functionality, and is therefore considered to be merely a computer program per se, which is non-statutory subject matter. Further, "transmission media" such as "communications links" as broadly defined may include non-tangible media such as signals, which are also considered non-statutory. When a claim encompasses both statutory and non-statutory subject matter, the claim as a whole is directed to non-statutory subject matter.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Taylor, "Risk Analysis and Probabilistic Survivability Assessment (RAPSA): An Assessment Approach for Power Substation Hardening".

Claim 1

Taylor discloses a Cyber-Security Damage Assessment and Evaluation Measurement (CDAEM) system comprising:

a set of one through "n" functions or sub-functions each which addresses a operational topic, capability or activity which is either required or desired to be performed in the accomplishment of the mission, task or objective of an organization, entity or individual, where the functions and/or sub-functions by analytical representations either simulates or emulates one or more operational topics, capabilities or activities in the context of a cyber-crime attack, cyber-terror attack or other man-made or natural disaster (Section 2 and Section 3);

Art Unit: 2139

one or more input modules or functions that accept user defined actual or desired operational parameters for each function and/or sub-function (page 3, 2<sup>nd</sup> paragraph: "A key survivability concept is the identification of essential services along with essential properties in support of those service. Among the essential properties of interest are integrity, confidentiality, availability, reliability or performance requirements" = actual or desired operational parameters" and Section 3);

one or more input modules or functions that accept user defined sensitivity study parameters for various functions and/or sub-functions (Section 2: "Survivability: page 3, 2<sup>nd</sup> paragraph: "confidentiality");

one or more analytical models which translate operational topics, capabilities or activities into dollar definitive representations and transcend the incompatibility of mapping an operational environment into a financial model which is related to disaster losses and dollar loss potentials and/or exposures ("RAPSA Process Description: Stage 4" and Section 2: page 4: "Using modeling risks and causal relationships are event and fault trees to analyze...");

one or more output modules or functions which provide definitive dollar representations of direct losses, economic losses and damage claim losses based upon the user defined actual or desired operational parameters for each functions and/or sub-

functions (Section 1: "economic disruption"; Section 2 and 3).

#### Claim 2

Taylor discloses wherein the user of the CDAEM system defined in claim 1 has the capabilities to use the system in a stand alone, single computer or digital device configuration, or as part of a configuration that includes a network of computers and digital devices (page 1, Section 1: "a large network or infrastructure system").

#### Claim 3

Taylor discloses wherein the user of the CDAEM defined in claim 1 has the capabilities to use the device in a direct user present at the computer or digital device configuration, or as part of remote access configuration which may include wireline, wireless or other modes of communications (Table 2 and Table 4 and page 5: "the communication status information to corporate computers").

#### Claim 4

Taylor discloses wherein the user of the CDAEM system defined in claim 1 has the capabilities to use the system in a stand alone, single operations mode, or as part of a configuration that includes a network or grouping of CDAEM type of systems (Section 4: "standalone risk assessment for cyber system security") or other systems methods or apparatuses which use modules or function to represent or to addresses a operational topic, capability or activity which is either required or desired to be performed in the

Art Unit: 2139

accomplishment of the mission, task or objective of an organization, entity or individual (Section 1-3: "Survivability System Analysis (SSA) focuses on organization's mission to withstand attacks..").

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of copending Application No. 10/737503. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Application 10/737503	Instant Application 10/737373
Claim 1:	Claim 1:

A Cyber-Security Vulnerability Detection and Compliance Measurement (CDCM) system comprising:	A Cyber-Security Damage Assessment and Evaluation Measurement (CDAEM) system comprising:
a set of one through "n" functions or sub-functions each which addresses a operational topic, capability or activity which is either required or desired to be performed in the accomplishment of the mission, task or objective of an organization, entity or individual, where the functions and/or sub-functions by analytical representations either simulates or emulates one or more, or a group of, operational topics, capabilities or activities in the context of a cyber-crime attack, cyber-terror attack or other man-made or natural disaster;	a set of one through "n" functions or sub-functions each which addresses a operational topic, capability or activity which is either required or desired to be performed in the accomplishment of the mission, task or objective of an organization, entity or individual, where the functions and/or sub-functions by analytical representations either simulates or emulates one or more operational topics, capabilities or activities in the context of a cyber-crime attack, cyber-terror attack or other man-made or natural disaster;
one or more input modules or functions that accept user defined actual or desired operational parameters for each function and/or sub-function;	one or more input modules or functions that accept user defined actual or desired operational parameters for each function and/or sub-function;



one or more input modules or functions that accept user defined sensitivity study parameters for various functions and/or sub-functions;	one or more input modules or functions that accept user defined sensitivity study parameters for various functions and/or sub-functions;
one or more analytical models which translate operational topics, capabilities or activities into dollar definitive representations and transcend the incompatibility of mapping an operational environment into a financial model, a performance model, a compliance model, and related system measurement model configurations which are required to provide measurement results which are representative of, and definitive of, the system and entity, organization or individual which is being measured;	one or more analytical models which translate operational topics, capabilities or activities into dollar definitive representations and transcend the incompatibility of mapping an operational environment into a financial model which is related to disaster losses and dollar loss potentials and/or exposures;
one or more output modules or functions which provide definitive representations of performance and compliance of the	one or more output modules or functions which provide definitive dollar representations of direct losses, economic

system and entity, organization or individual based upon the user defined actual or desired operational parameters for each functions and/or sub-functions as against a defined standard or as a raw non-standardized value;	losses and damage claim losses based upon the user defined actual or desired operational parameters for each functions and/or sub-functions.
one or more output modules or functions which provide definitive representations of the vulnerabilities and weaknesses which were observed in the system and entity, organization or individual based upon the user defined actual or desired operational parameters for each functions and/or sub-functions;	
one or more output modules or functions which provide the capabilities to report and to archive the definitive and/or parametric results of the various measurements and definitive results provided by these models and processing activities; and	

one or more output modules or functions which provide definitive representations of the intermediate and local function and/or sub-function performance parameters and the ability to report and to archive such values and parameters.	
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Application 10/737503 by having one or more output modules or functions which provide definitive dollar representations of direct losses, economic losses and damage claim losses based upon the user defined actual or desired operational parameters for each functions and/or sub-functions, which is disclosed in the Instant Application 10/737373. Instead of having multiple intermediate reports for the output modules that is claimed in Application 10/737503, can just have output modules that the user defined as actual or desired operational parameters such as: direct losses, economic losses and damage claim losses which is claimed in Application 10/737503 (everything underlined in the table) in the intermediate reports of the various measurements and definitive results provided by the models (financial, performance, compliance and related system measurement model configurations).

Therefore, claim 1 of Application # 10/737503 contains every element of claim 1 of the instant application and thus anticipate the claim of the instant application. Claim

Art Unit: 2139

of the instant application therefore are not patently distinct from the earlier application (10/737503) claim and as such are unpatentable over obvious-type double patenting. A later application claim is not patentably distinct from an earlier claim if the later claim is anticipated by the earlier claim.

Application 10/737503	Instant Application 10/737373
Claim 2:	Claim 2:
Wherein the user of the CDCM system defined in claim 1 has the capabilities to use the system in a stand alone, single computer or digital device configuration, or as part of a configuration that includes a network of computers and digital devices.	Wherein the user of the CDAEM system defined in claim 1 has the capabilities to use the system in a stand alone, single computer or digital device configuration, or as part of a configuration that includes a network of computers and digital devices.

Claim 2 of Application # 10/737503 contains every element of claim 2 of the instant application and thus anticipate the claim of the instant application. Claim of the instant application therefore are not patently distinct from the earlier application (10/737503) claim and as such are unpatentable over obvious-type double patenting. A later application claim is not patentably distinct from an earlier claim if the later claim is anticipated by the earlier claim.

Application 10/737503	Instant Application 10/737373
Claim 3:	Claim 3:
Wherein the user of the CDCM defined in claim 1 has the capabilities to use the device in a direct user present at the computer or digital device configuration, or as part of remote access configuration which may include wireline, wireless or other modes of communications.	Wherein the user of the CDAEM defined in claim 1 has the capabilities to use the device in a direct user present at the computer or digital device configuration, or as part of remote access configuration which may include wireline, wireless or other modes of communications.

Claim 3 of Application # 10/737503 contains every element of claims 3 of the instant application and thus anticipate the claim of the instant application. Claim of the instant application therefore are not patently distinct from the earlier application (10/737503) claim and as such are unpatentable over obvious-type double patenting. A later application claim is not patentably distinct from an earlier claim if the later claim is anticipated by the earlier claim..

Application 10/737503	Instant Application 10/737373
Claim 4:	Claim 4:
Wherein the user of the CDCM system defined in claim 1 has the capabilities to use the system in a stand alone, single	Wherein the user of the CDAEM system defined in claim 1 has the capabilities to use the system in a stand alone, single

operations mode, or as part of a configuration that includes a network or grouping of CDCM type of systems.	operations mode, or as part of a configuration that includes a network or grouping of CDAEM type of systems or other systems methods or apparatuses which use modules or function to represent or to addresses a operational topic, capability or activity which is either required or desired to be performed in the accomplishment of the mission, task or objective of an organization, entity or individual.
-------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Claim 4 of Application # 10/737503 contains every element of claim 4 of the instant application and thus anticipate the claim of the instant application. Claim of the instant application therefore are not patently distinct from the earlier application (10/737503) claim and as such are unpatentable over obvious-type double patenting. A later application claim is not patentably distinct from an earlier claim if the later claim is anticipated by the earlier claim.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jahn (US 2004/0019803 A1) teaches a software facility for evaluating and reporting security vulnerabilities on a computer network.

Bunker, V et al. (US 2003/0056116 A1) teaches a real-time network security vulnerability assessment tests, possibly complete with recommended security solutions. External vulnerability assessment tests can emulate hacker methodology in a safe way and enable study of a network for security openings, thereby gaining a true view of risk level without affecting customer operations.

Bunker, V et al. (US 2003/0028803 A1) teaches a real-time network security vulnerability assessment tests, possibly complete with recommended security solutions. External vulnerability assessment tests can emulate hacker methodology in a safe way and enable study of a network for security openings, thereby gaining a true view of risk level without affecting customer operations.

Magdych et al. (US 6, 546, 493 B1) teaches a system, method and computer program product are provided for scanning a source of suspicious network communications. A scan that may include a risk assessment scan for identifying vulnerabilities at the source.

Art Unit: 2139

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kari L. Schmidt whose telephone number is 571-270-1385. The examiner can normally be reached on Monday - Friday: 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KS

*Taghir J. Arani*  
*Primary Examiner*  
*Taghir J. Arani*  
*3/13/07*